Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
AMENDMENT OF PARTS 1,2, AND	)	
21 OF THE COMMISSION'S RULES	)	PR DOCKET NO. 92-80
GOVERNING USE OF THE FREQUENCIES	)	RM 7909
IN THE 2.1 AND 2.5 GHZ BANDS	)	

COMMENTS OF SATELLITE SYSTEMS INTERNATIONAL LTD.

Satellite Systems International Ltd. (SSI) hereby submits its comments in response to the Notice of Proposed Rulemaking released May 8, 1992 in the above captioned proceeding.

1. SSI is a professional telecommunications engineering firm. In the course of its work it has prepared radio engineering for MDS applications to the FCC for various clients. SSI is strongly opposed to the proposal beginning at paragraph 12 of the Notice to use separation standards instead of interference studies in the licensing of MDS systems.

2. The Commission states that the advantage of the existing criteria (based on avoiding prohibited interference) is that they afford licensees a high degree of flexibility in designing their systems, but this is not the principal benefit which the public realizes from the present criteria. Far more significant is the fact that the interference standards take into account terrain blockage. MDS utilizes frequencies whose reception is limited to line-of-sight. Its transmissions are blocked by mountains, hills and other obstructions. This means that in the large portion of the United States where the terrain is hilly and mountainous multiple MDS systems can operate without interfering

with one another in a geographical area where, if arbitrary "billiard ball" based mileage separation requirements are imposed, only one such system would be permitted.

3. The whole purpose for which the Commission is encouraging MDS is to provide competition for cable, but if large numbers of communities cannot have wireless cable because of arbitrary separation requirements imposed by the Commission, requirements which have nothing to do with whether as a technical matter an MDS system could operate in those communities, how is the Commission's purpose being served? Arbitrary separation requirements based on a billiard ball model may be in the Commission's interest because they eliminate the need for staff engineers to review interference studies, but they do not meet the public need to provide MDS service to as many communities as technically can receive it.

4. West Virginia is a good illustration of the reason why mileage separation standards for MDS licensing are contrary to the public interest. Many communities in West Virginia are located in valleys between mountains. It is not unusual for there to be three or four mountain ranges within 50 miles of any given point. Using mileage separation standards there can be only one MDS system per fifty miles. Because of terrain blockage, using interference standards there can be an MDS system in virtually every valley.

5. The situation is similar in the mountainous areas of Alabama, Arizona, California, Colorado, Georgia, Idaho, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New York, North Carolina, Oregon, South Carolina, Tennessee, Utah, Vermont, Virginia, Washington and Wyoming. The billiard ball earth model may work in the plains and some coastal regions, but it is not suited for the nation as a whole. Arbitrary mileage separation standards may be in the Commission's interest but they are not in the public interest. Many rural communities with cable will be unnecessarily deprived of competition, and others without cable will be deprived of MDS service which they could otherwise receive.

6. Another problem with separation standards is that they will sometimes deprive a licensee of the opportunity to use an existing tower because of short spacing. Mounting an MDS antenna on an existing tower results in significant financial savings to the wirleless cable operator and greatly lessened environmental impact on the community. With interference standards an existing tower can usually be utilized through the employment of directional antennas, reduction of transmitter power and other engineering techniques.

7. With separation standards if an existing tower is short spaced, even by a small amount, the applicant may have to obtain land and erect a tower of his own, which involves not only considerable costs but obtaining environmental, zoning and FAA approvals which may take years. Inevitably the increased costs of

construction are passed on to the consumer. Arbitrary separation standards may simplify the Commission's job of processing applications, but they complicate matters greatly for applicants, licensees, the communities being served and other government agencies at all levels.

8. Experience with arbitrary separation standards has already proved to be a failure in both MDS and 931 Megahertz paging. In 931 Megahertz paging the 70 mile arbitrary standard has resulted in large areas of the U.S. even in the plains being unservable under existing rules. This is graphically illustrated in Attachment 1, a diagram and description of the problem prepared by Arthur Larson of Larson Associates USA, Inc., a radio engineering firm in Plano, Texas.

9. In MDS, under the artificial 50 mile spacing standard imposed by the Commission's April 10, 1988 Public Notice, many communities in hilly areas will never be reachable by wireless cable. The Commission has returned as "unacceptable" dozens of properly engineered applications for MDS systems to serve small communities in mountainous or hilly terrain due to the arbitrary 50 mile spacing rule imposed by that Notice. Unless this is changed these communities will never have access to competitive multichannel cable television.

10. The United States has an adequate pool of competent cable, television and radio engineers who are fully capable of continuing to assure that MDS systems cover their intended service areas and do not interfere with adjacent MDS systems.

CONCLUSION

We strongly encourage the Commission to repudiate as a failure the arbitrary 50 mile rule adopted in the April, 1988 Public Notice and to continue the well thought out existing interference standards.

Respectfully submitted,

SATELLITE SYSTEMS INTERNATIONAL LTD.

By 
Gerald S. Rourke

1155 Connecticut Ave., N.W.
Suite 300
Washington, DC 20036
(202) 467-8596
(301) 983-8543

Its Attorney

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